



TRENCHLESS EXCAVATION: RULES AND SAFE PRACTICES

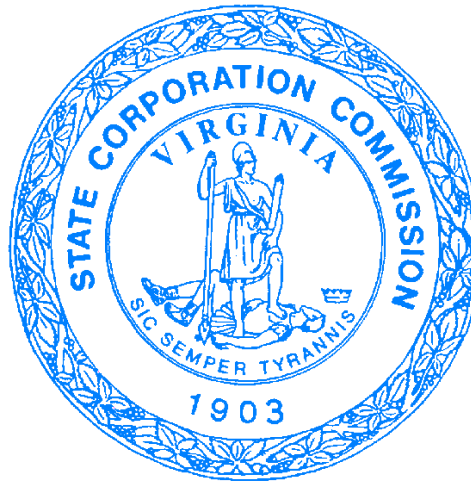




SAFETYMATTERS

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CALL 811

Call 811 ... But don't stop there.

- G** Call Miss Utility @ 811 before you dig.
- A** Allow required time for marking.
- R** Respect the marks.
- E** Excavate carefully.





WHITELINING

**Mark proposed
excavation
with white
paint**



Specific Location

- **56-265.18.2.**
 - Every Notice shall contain the specific location of the proposed work
- **20VAC5-309-190**
 - Clearly describe the area with sufficient detail
 - GPS Coordinates
 - Whitelining (Physical)
 - Whitelining (Electronic)
 - Use of Quadrants

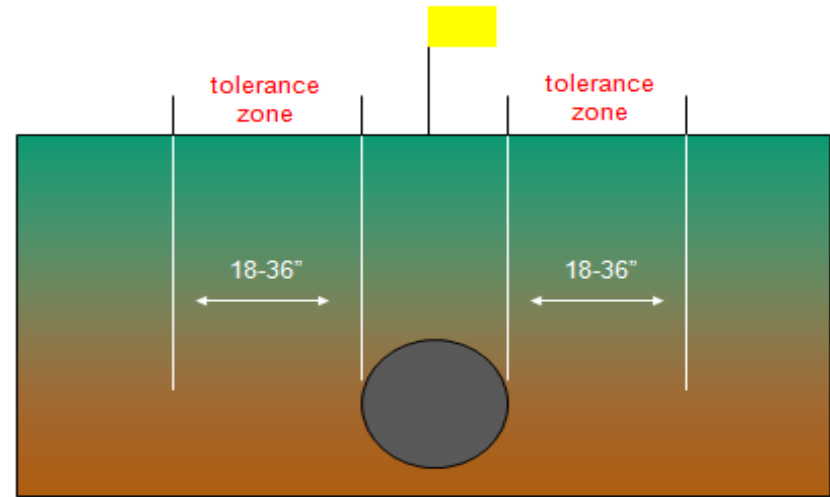




TOLERANCE ZONES

**Respect the
Tolerance Zone**

**Distance from
the outside edge
of the utility plus
the tolerance
zone**



Setting up the Bore

- 20VAC5-309-150 (2.&3.)
 - Ensure the grounding rods and bore stabilizing augers are installed at a safe distance from the marked utility lines (at least 24 inches plus the width of the utility)





OBSERVE THE AREA

**Look for
signs of any
utilities that
may have
been missed**



Site Inspection

- **20VAC5-309-180.**
 - Perform a site inspection and look for signs of clear evidence of unmarked utility lines
- **20VAC5-309-150.1.**
 - Ensure all utilities in the bore path are marked
- **56-265.24.C.**
 - Three Hour Notice
- **56-265.17.C.**
 - Wait three hours for utility markings





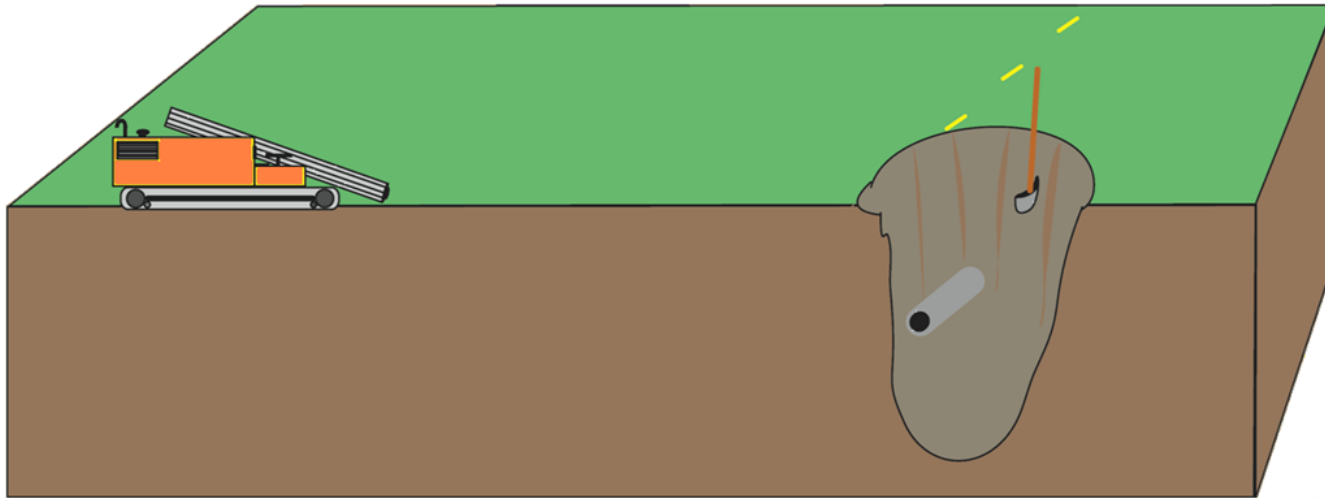
CROSSING UTILITIES

Utilities that will be crossed, must be exposed by potholing or hand digging. The crossing of that utility must be watched when drilling and backreaming



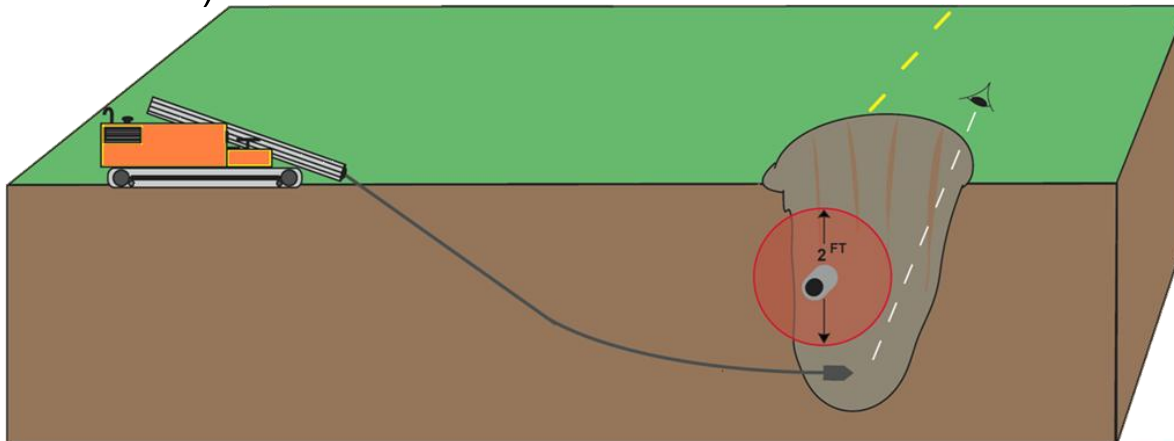
Exposing Underground Utilities

- **56-265.24.A.**
 - When excavating within two feet of the marked location of underground utility lines, all reasonable steps must be taken to protect, support and backfill
- **20VAC5-309-150.6.**
 - Hand expose all utilities in the bore path prior to commencing bore



Crossing Underground Utilities

- **20VAC5-309-150.7.**
 - Ensure the drill head is functioning properly
- **20VAC5-309-150.8.**
 - Watch the drill head pass through potholes, entrance and exit pits
- **20VAC5-309-150.4.**
 - Ensure sufficient clearance is maintained during pullback (at least two feet)





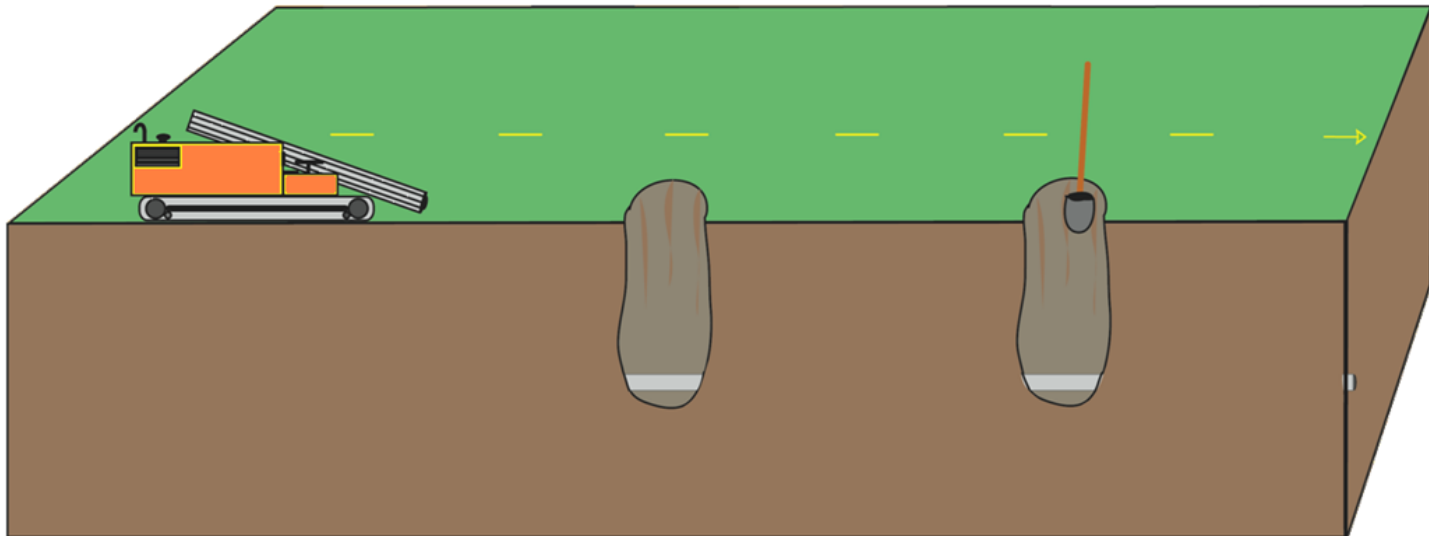
DRILLING PARALLEL

**More frequent
potholing and
tracking of
the drill head
to verify
location of the
utility**



Exposing Underground Utilities

- 20VAC5-309-150.6.
 - When paralleling existing facilities, hand expose at reasonable distances along the line(s)





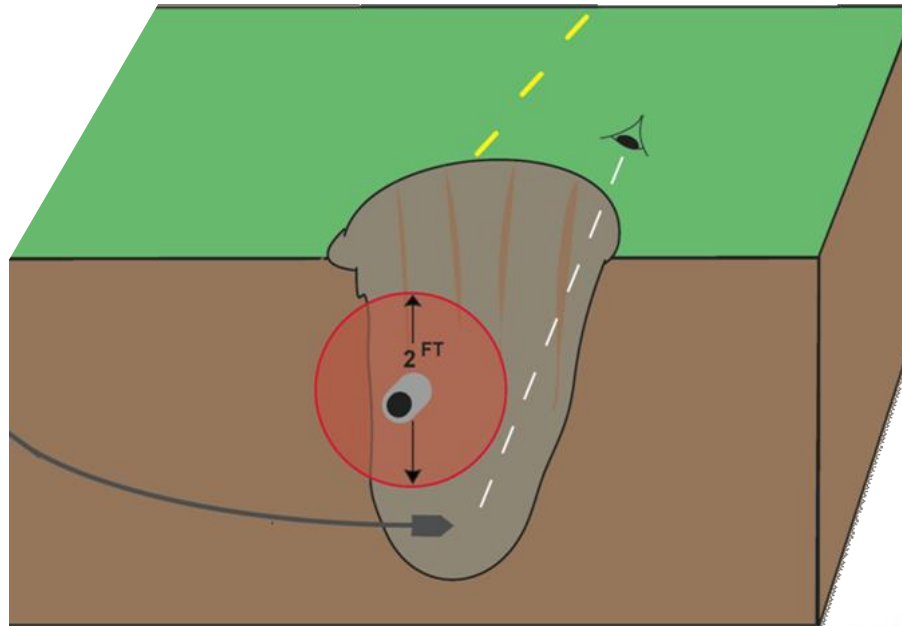
NEVER ASSUME DEPTHS

**Only an
estimate and
should still
pothole in
several
different
locations to
expose the line**



Exposing Underground Utilities

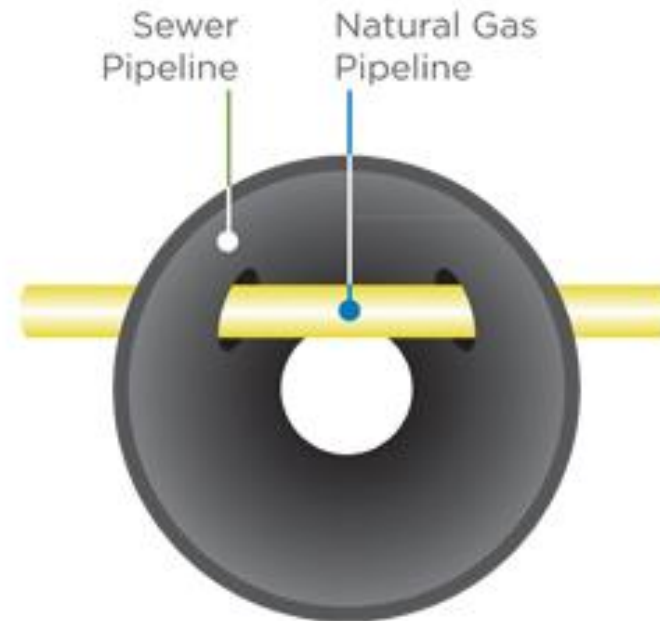
- 20VAC5-309-150.9.
 - If the depth indicated by the locating device is lower than the bottom of the pothole or pit, the excavator shall cease boring until the hole/pit can be hand excavated further to maintain a visual inspection of the drill head

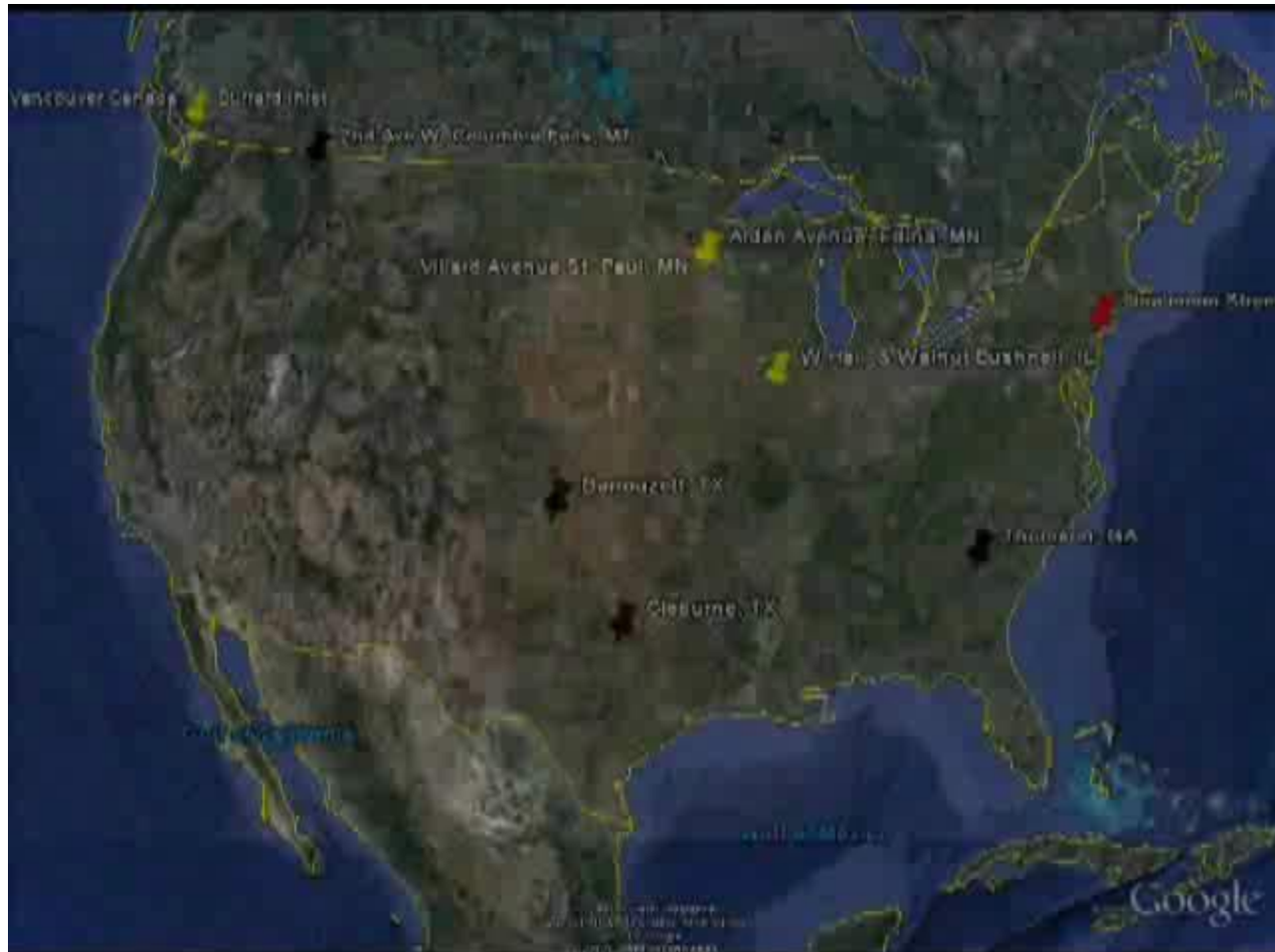




CROSS BORING

**Respect
sewer lines
and expose
them.**





Changes Made to Further Protect Underground Utilities When Utilizing Trenchless Technology

- 2001 – State Corporation Commission’s Rules for Enforcement
(Special consideration for water and sewer lines)
- 2006 – Virginia Uniform Statewide Building Code
(Installation of tracer wire on sewer lateral lines)
- 2011 – Underground Utility Damage Prevention Act
(Sewer Lateral Legislation)



56-265.19:1. Private sewer laterals and sewer system laterals.

- Reasonable care to mark sewer laterals
 - Location where it meets public ROW or easement
 - Marking the location of the main connection
 - Visual inspection to determine path
- Provide best reasonably available records
- On site meetings to provide additional information
- Best Practices adopted by the Advisory Committee include:
 - If the location of sewer laterals cannot be determined, trenchless technology should not be used





TRACK THE BORE

**Drill head must
be located at
least every half
to full length
pipe, and
sometimes more
often depending
on area**



**For more information,
visit www.ditchwitch.com/safe**



Other related sessions:

- **Underground Utility Construction – Roles and Responsibilities**
- **How Deep is Too Deep When Installing Lines by Trenchless Technology?**

Enjoy the break and the rest of the Conference!

